

REMARKS

The Official Action of July 2, 2003, and the prior art cited and relied upon therein have been carefully reviewed. The claims in the application are now claims 1 and 3-11, and these claims define patentable subject matter warranting their allowance. Accordingly, the applicant respectfully requests favorable reconsideration and allowance.

Acknowledgement by the PTO of the receipt of applicant's papers filed under §119 is noted.

The Office Action contains at the top of page 2 certain objections to dependent claims. Such objections are respectfully traversed.

Nevertheless, consistent with the suggestions made in the Office Action, the dependent claims have been amended. Such amendments are clearly and obviously non-narrowing and cosmetic only, and do not impose any further limitations on the claims.

No rejections have been imposed under §112. Accordingly, applicant understands that the claims are deemed by the PTO to meet all the requirements of §112, and applicant is proceeding in reliance thereof.

Claims 1-11 have been rejected as obvious under §103 from an earlier patent of the applicant, namely Meinander USP

5,861,052 (Meinander) in view of Pelzer USP 4,030,897

(Pelzer). This rejection is respectfully traversed.

The present invention can be considered an improvement on Meinander, and consequently the examiner is correct in describing what Meinander discloses, and also what Meinander does not disclose. The rejection relies on Pelzer as a secondary reference to allegedly make up for the deficiencies of Meinander, and the PTO further takes the position that it would have been obvious to the person of ordinary skill in the art at the time the present invention was made to abstract from Pelzer what is missing in Meinander and add it to Meinander, and thereby obtain what is claimed. Applicant respectfully disagrees. What Pelzer discloses does not fit in with Meinander, and therefore the combination would not have been obvious; moreover, even if the combination were obvious, the resultant reconstruction would not correspond to applicant's claimed subject matter.

However, before describing why this is so, applicant first wishes to provide a brief review of the present invention. Thus, unlike Meinander where the dynamic energy contained in the rotating fluid is all utilized as pumping pressure at the outlet of the apparatus, the present invention instead provides an additional device (which is not required for the pumping) to recover excess dynamic energy present at

the outlet of the apparatus during its use. Thus, the present invention recovers dynamic energy contained in the fluid being degassed in the degassing apparatus.

Pelzer describes another type of degassing apparatus from that described in Meinander. Pelzer has a turbine 49 at the end opposite to the inlet. However, that turbine is described in Pelzer (col. 3, lines 41 to 45) as being an **air** turbine which comprises the motor which drives the rotating drum. The compressed air for driving the turbine is fed through ducts 50 and 51 and **is not part of the fluid being degassed** in the apparatus.

As to the nonobviousness of the combination, there is no reason (outside the reason provided in applicant's specification, not available to the person of ordinary skill in the art at the time the present invention was made) why the person of ordinary skill in the art would have wanted to add a turbine to the outlet of Meinander, and therefore no motive or incentive exists in the prior art for the proposed combination.

Moreover, and perhaps even more importantly, even if such a combination were obvious the resultant reconstruction of Meinander in view of Pelzer would not correspond to what is claimed. Such a reconstruction of Meinander based on Pelzer would have an **air driven** turbine. Applicant's claims make

clear that the turbine is adapted to be driven by liquid exiting from the rotor of the degassing apparatus itself.

Moreover, there is not the remotest inference in either Meinander or Pelzer, or any possible combination of these documents, about the recovery of dynamic energy contained in the fluid being degassed in the degassing apparatus. Stated another way, the prior art provides no **reasonable** expectation of applicant's results, and indeed provides no expectation **at all** of applicant's results.

Applicant's claims clearly define patentable subject matter. Thus, claim 8 for example recites "directing the resultant degassed liquid into a turbine at said opposite end of said rotor," and then "discharging said degassed liquid through said turbine,...". No combination of Pelzer and Meinander, even if obvious, could result in such a process.

The Office Action with respect to claims 2 and 10 states that energy recovery from the turbine is disclosed in Pelzer at column 3, lines 45 -54. Applicant does not see any such disclosure in Pelzer at the foot of column 3. Instead, consistent with what applicant has stated above, Pelzer discloses that compressed air is required to drive the turbine. Of course, the purpose of a turbine is usually to generate electricity, and as stated in Pelzer the turbine produces a rotating electric field. But it will be readily

understood that any conversion of one type of energy to another type of energy involves a loss of energy to heat, and so the compressed air required to drive the Pelzer turbine inputs more energy than is taken out of the turbine.

In the present invention, energy that otherwise would have been lost is utilized to drive the turbine, so there is a net gain rather than a net loss as in Pelzer.

Applicant's claims define nonobvious subject matter. Applicant accordingly respectfully requests withdrawal of the rejection.


The prior art documents made of record and not relied upon have been noted, along with the implication that such documents are deemed by the PTO to be insufficiently pertinent to warrant their application against any of applicant's claims.

Favorable reconsideration and allowance are earnestly solicited.

Respectfully submitted,

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